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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,862

04/14/2006

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EXAMINER

SHAH, SAMIR M

ART UNIT

PAPER NUMBER

2856

MAIL DATE

DELIVERY MODE

01/14/2008

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/575,862	Applicant(s) JOUANET ET AL.	
	Examiner Samir M. Shah	Art Unit 2856	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 09 May 2006.
- 2a) ☐ This action is FINAL. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-4, 7 and 8 is/are rejected.
- 7) ☒ Claim(s) 5, 6 and 9-11 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2006 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date <u>4/14/2006</u> . | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Drawings

1. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they do not include the following reference sign(s) mentioned in the description: support means (5), areas (6).
2. Corrected drawing sheets in compliance with 37 CFR 1.121(d) are required in reply to the Office action to avoid abandonment of the application. Any amended replacement drawing sheet should include all of the figures appearing on the immediate prior version of the sheet, even if only one figure is being amended. Each drawing sheet submitted after the filing date of an application must be labeled in the top margin as either "Replacement Sheet" or "New Sheet" pursuant to 37 CFR 1.121(d). If the changes are not accepted by the examiner, the applicant will be notified and informed of any required corrective action in the next Office action. The objection to the drawings will not be held in abeyance.

Specification

Content of Specification

- (a) Title of the Invention: See 37 CFR 1.72(a) and MPEP § 606. The title of the invention should be placed at the top of the first page of the specification unless the title is provided in an application data sheet. The title of the invention should be brief but technically accurate and descriptive, preferably from two to seven words may not contain more than 500 characters.

- (b) Cross-References to Related Applications: See 37 CFR 1.78 and MPEP § 201.11.
- (c) Statement Regarding Federally Sponsored Research and Development: See MPEP § 310.
- (d) The Names Of The Parties To A Joint Research Agreement: See 37 CFR 1.71(g).
- (e) Incorporation-By-Reference Of Material Submitted On a Compact Disc: The specification is required to include an incorporation-by-reference of electronic documents that are to become part of the permanent United States Patent and Trademark Office records in the file of a patent application. See 37 CFR 1.52(e) and MPEP § 608.05. Computer program listings (37 CFR 1.96(c)), "Sequence Listings" (37 CFR 1.821(c)), and tables having more than 50 pages of text were permitted as electronic documents on compact discs beginning on September 8, 2000.
- (f) Background of the Invention: See MPEP § 608.01(c). The specification should set forth the Background of the Invention in two parts:
 - (1) Field of the Invention: A statement of the field of art to which the invention pertains. This statement may include a paraphrasing of the applicable U.S. patent classification definitions of the subject matter of the claimed invention. This item may also be titled "Technical Field."
 - (2) Description of the Related Art including information disclosed under 37 CFR 1.97 and 37 CFR 1.98: A description of the related art known to the applicant and including, if applicable, references to specific related art and problems involved in the prior art which are solved by the applicant's invention. This item may also be titled "Background Art."
- (g) Brief Summary of the Invention: See MPEP § 608.01(d). A brief summary or general statement of the invention as set forth in 37 CFR 1.73. The summary is separate and distinct from the abstract and is directed toward the invention rather than the disclosure as a whole. The summary may point out the advantages of the invention or how it solves problems previously existent in the prior art (and preferably indicated in the Background of the Invention). In chemical cases it should point out in general terms the utility of the invention. If possible, the nature and gist of the invention or the inventive concept should be set forth. Objects of the

invention should be treated briefly and only to the extent that they contribute to an understanding of the invention.

- (h) Brief Description of the Several Views of the Drawing(s): See MPEP § 608.01(f). A reference to and brief description of the drawing(s) as set forth in 37 CFR 1.74.
- (i) Detailed Description of the Invention: See MPEP § 608.01(g). A description of the preferred embodiment(s) of the invention as required in 37 CFR 1.71. The description should be as short and specific as is necessary to describe the invention adequately and accurately. Where elements or groups of elements, compounds, and processes, which are conventional and generally widely known in the field of the invention described and their exact nature or type is not necessary for an understanding and use of the invention by a person skilled in the art, they should not be described in detail. However, where particularly complicated subject matter is involved or where the elements, compounds, or processes may not be commonly or widely known in the field, the specification should refer to another patent or readily available publication which adequately describes the subject matter.
- (j) Claim or Claims: See 37 CFR 1.75 and MPEP § 608.01(m). The claim or claims must commence on separate sheet or electronic page (37 CFR 1.52(b)(3)). Where a claim sets forth a plurality of elements or steps, each element or step of the claim should be separated by a line indentation. There may be plural indentations to further segregate subcombinations or related steps. See 37 CFR 1.75 and MPEP § 608.01(i)-(p).
- (k) Abstract of the Disclosure: See MPEP § 608.01(f). A brief narrative of the disclosure as a whole in a single paragraph of 150 words or less commencing on a separate sheet following the claims. In an international application which has entered the national stage (37 CFR 1.491(b)), the applicant need not submit an abstract commencing on a separate sheet if an abstract was published with the international application under PCT Article 21. The abstract that appears on the cover page of the pamphlet published by the International Bureau (IB) of the World Intellectual Property Organization (WIPO) is the abstract that will be used by the USPTO. See MPEP § 1893.03(e).
- (l) Sequence Listing. See 37 CFR 1.821-1.825 and MPEP §§ 2421-2431. The requirement for a sequence listing applies to all sequences disclosed in a given application, whether the sequences are claimed or not. See MPEP § 2421.02.

3. The disclosure is objected to because of the following informalities:
 - (a) As to page 6, line 2, delete "element deformable 4 of a sensor" and replace it with --deformable element 4 of the sensor--.
 - (b) As to page 6, line 20, delete "area 6b come into" and replace it with --area 6b comes into--.
 - (c) As to page 7, line 15, delete "element 4 come into" and replace it with --element 4 comes into--.
 - (d) As to page 12, line 9, delete "embodiment" and replace it with --embodiments--.
4. Appropriate correction is required.

Claim Objections

5. Claims 1-11 are objected to because of the following informalities:
 - (a) As to claim 1, line 1, delete "Movement" and replace it with --A movement--.
 - (b) As to claim 1, line 5, delete "in which it is isolated" and replace it with --in which the deformable element is isolated--.
 - (c) As to claim 1, line 7, delete "detector wherein" and replace it with --wherein--.
 - (d) As to claim 1, line 9, delete "and that the" and replace it with --and wherein--.
 - (e) As to claims 2-10, line 1, delete "Detector" and replace it with --The detector--.
 - (f) As to claim 2, line 2, delete "comprising" and replace it with --further comprising--.

- (g) As to claim 7, line 3, delete "body of the sensor" and replace it with --body of each of the three sensors--.
- (h) As to claim 8, line 3, delete "position of the sensor" and replace it with --position of one or more of the three sensors--.
- (i) As to claim 9, line 2, delete "body of a sensor" and replace it with --body of each of the three sensors--.
- (j) As to claim 11, line 1, delete "Method for production of a sensor" and replace it with --A method for the production of each of the three sensors--.
- (k) As to claim 11, line 2, delete "techniques and comprises" and replace it with --techniques comprising the steps of--.
- (l) As to claim 11, line 8, delete "areas," and replace it with --areas, and--.

6. Appropriate correction is required.

Claim Rejections - 35 USC § 103

7. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

8. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

9. Claims 1-4, 7 and 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Thomas, Jr. (US Patent 5,128,671 henceforth "Thomas, Jr.") in view of Matsunaga et al. (US Patent 6,230,564 B1 henceforth "Matsunaga").

(a) As to claim 1, Thomas, Jr. discloses a movement detector having six/multiple degrees of freedom comprising a support/enclosure (10) on which three position sensors (11/14, 12/15, 13/16) are arranged according to three orthogonal axes (X, Y, Z) (figures 1-3; column 2, line 11 - column 3, line 25), each sensor (11/14, 12/15, 13/16) comprising a rigid body (20), conducting areas (22) arranged on the rigid body (20) and an electrically conducting deformable element (21) presenting a rest position in which it is isolated from the conducting areas (22) (figures 1-3; column 2, line 11 - column 3, line 25), and moving from the rest position to an active position in response to a high-speed movement of predetermined direction and orientation (figures 1-3; column 2, line 11 - column 3, line 25), wherein each sensor (11/14, 12/15, 13/16) comprises conducting areas (22) and that the deformable element associated with each sensor (11/14, 12/15, 13/16) is in equilibrium around its central part, responds to a translation along a predetermined axis by bending causing a simultaneous and temporary contact of its ends with the conducting areas (22) and responds to a rotation around a predetermined

axis by a pivoting causing a simultaneous and temporary contact of its ends with conducting areas (22) (figures 1-3; column 2, line 11 - column 3, line 25).

As to claim 1, Thomas, Jr. does not expressly disclose each sensor (11/14, 12/15, 13/16) comprising four conducting areas arranged two by two on two opposite inside walls on the rigid body (20) or that the deformable element (21) of each sensor (11/14, 12/15, 13/16) responds to a translation by contact of its ends with the two conducting areas of one and the same inside wall or that it responds to a rotation by contact of its ends with the two conducting areas arranged on opposite inside walls, as defined in the claim.

As to claim 1, Matsunaga discloses a "semiconductor acceleration sensor" comprising four conducting areas (21a, 21b, 24a, 24b) arranged two by two on two opposite inside walls on a rigid body (26a, 26b), wherein the deformable element (12) of the sensor responds to a translation by contact of its ends (11) with the two conducting areas of one and the same inside wall and responds to a rotation by contact of its ends (11) with the two conducting areas arranged on opposite inside walls (figures 1, 2, 3a-3e, 5a-5c, 7a-7c, 8a-8c, 9, 10; column 2, line 63 - column 3, line 65).

It would have been obvious to one of ordinary skill in the art at the time the invention was made to modify Thomas, Jr.'s sensors (11/14, 12/15, 13/16) to include four conducting areas arranged two by two on two opposite inside walls on a rigid body so that the deformable element of the sensors can respond to a translation by contact of its ends with two conducting areas of one and the same inside wall and respond to a rotation by contact of its ends with two conducting areas arranged on opposite inside

walls, as taught by Matsunaga, because such an arrangement would provide a more accurate response to/detection of a rotation or translation of Thomas, Jr.'s detector by enabling the measurement of a change in capacitance between the ends of the deformable element and the conducting areas on the inside walls, as taught by Matsunaga.

(b) As to claim 2, Thomas, Jr. discloses an electronic processing circuit (28) connected to the conducting areas of the three sensors (11/14, 12/15, 13/16) (figures 1-3; column 3, lines 25-42).

(c) As to claims 3 and 4, Thomas, Jr. discloses that the deformable element (21) is a beam in equilibrium around its transverse median axis and comprising conducting areas at the ends thereof (figure 1a; column 2, lines 34-55).

(d) As to claim 7, Thomas, Jr. discloses that the deformable element (21) is electrically connected to a power supply (25) contact area arranged on the rigid body (20) of each of the sensors (11/14, 12/15, 13/16) (figures 1-3; column 3, lines 25-42).

(e) As to claim 8, Thomas, Jr. discloses that the deformable element (21) is in an equilibrium position corresponding to the rest position of one or more of the three sensors (11/14, 12/15, 13/16) for any movement the acceleration whereof is less than or equal to the force of gravity G (figures 1-3; column 2, lines 34-55).

Allowable Subject Matter

10. Claims 5, 6 and 9-11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Conclusion

11. The prior art made of record and not relied upon, cited in the attached 892 form, is considered pertinent to applicant's disclosure.

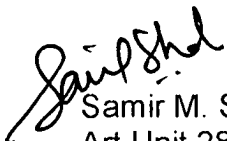
12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Samir M. Shah whose telephone number is (571) 272-2671. The examiner can normally be reached on Monday-Friday 9:30 am to 6:00 pm.


If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Hezron Williams can be reached on (571) 272-2208. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Application/Control Number:
10/575,862
Art Unit: 2856

Page 11

13. Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Samir M. Shah
Art Unit 2856
01/05/2008


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